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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/603,884  
Filing Date: June 25, 2003  
Appellant(s): GOLDBERG ET AL.

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Thomas Scherer  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 24, 2007 appealing from the Office action mailed July 24, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

The following is a listing of the evidence relied upon in the rejections of claims under appeal:

Jensen et al, U.S. Patent No. 5,615,362 (hereinafter Jensen)

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Jensen et al. (US Patent 5,615,362).

As per claim 1 Jensen et al. is directed to a system for specifying read/write consistency for an application, comprising:

an application comprising at least one transaction (column 4, lines 20-30; column 5, lines 59-62, wherein "transaction" means "object instance"), wherein the at least one transaction comprises at least one of a plurality of states, (column 9, lines 22-31) at least one of a plurality of transitions (column 6, lines 63-64, wherein "transition" means "transform"), and at least one artifact (column 6, lines 18-19, wherein "artifact" means "attribute"); and a database operatively connected to the application (column 4, lines 23-24); wherein the application accesses data associated with the at least one artifact

using a read/write consistency specification when the application enters the at least one of the plurality of states (column 4, lines 41-49; column 9, lines 23-35);

wherein the read/write consistency specification specifies at least one selected from the group consisting of a read consistency and a write consistency to apply to the at least one artifact within the transaction (column 4, lines 41-44).

As per claim 2 Jensen et al. is directed to wherein the application is defined using an application usage specification (column 5, lines 59-65).

As per claim 3 Jensen et al. is directed to wherein the application is designed using an application usage specification and a business object specification (column 5, lines 51-52; column 5, lines 59-65).

As per claim 4 Jensen et al. is directed to wherein the business object specification defines a variable of a business object (column 6, lines 25-27).

As per claim 5 Jensen et al. is directed to wherein the business object specification defines how the business object is to be used in within the plurality of states and the plurality of transitions using the application usage specification (column 9, lines 21-31).

A per claim 6 Jensen et al. is directed to wherein the application is designed using an application usage specification and a database schema (column 6, lines 61-62; column 9, lines 21-31).

As per claim 7 Jensen et al. is directed to wherein the database schema defines an attribute in a database schema (column 6, lines 61-62).

As per claim 8 Jensen et al. is directed to wherein the database schema defines how the attribute is to be used within the plurality of states and the plurality of transitions using the application usage specification (column 10, lines 46-57).

As per claim 9 Jensen et al. is directed wherein the database is a relational database (column 1, line 43).

As per claim 10 Jensen et al. is directed to wherein the read consistency includes at least one selected from the group consisting of none, read once, re-read, and read consistent (column 12, lines 13-15).

As per claim 11 Jensen et al. is directed to wherein the write consistency includes at least one selected from the group consisting of none, creating an object, write over, write append, and write consistent (column 13, lines 1-9).

As per claim 12 Jensen et al. is directed to wherein the artifact is one selected from the group consisting of a variable, an attribute, and a relationship (column 6, lines 18-19).

As per claim 13 Jensen et al. is directed to a method for generating an application, comprising:

- obtaining a business object specification that defines at least one artifact (column 5, lines 51-52);
- obtaining an application usage specification that defines the application as a plurality of states (column 9, lines 22-31) and a plurality of transitions (column 6, lines 63-64, wherein "transition" means "transform"), wherein the at least one artifact is associated with a state (column 9, lines 30-31);
- obtaining a read/write consistency specification that corresponds to at least one transaction, wherein the at least one transaction comprises at least one of the plurality of states and one of the plurality of transitions and the read/write consistency specification includes at least one selected from the group consisting of a read consistency and a write consistency to apply to the at least one artifact within the transaction (column 12, lines 13-15; column 13, lines 1-9);
- and generating the application using the database schema, the application usage

specification, and the read/write consistency specification (column 10, lines 46-57);

wherein the artifact is one selected from the group consisting of a variable, a relationship, and an attribute (column 6, lines 18-19).

wherein the application accesses data associated with the at least one artifact using a read/write consistency specification when the application enters the at least one of the plurality of states (column 4, lines 41-49; column 9, lines 23-35).

As per claim 14 Jensen et al. is directed to wherein the read consistency includes at least one selected from the group consisting of none, read once, re-read, and read consistent (column 12, lines 13-15).

As per claim 15 Jensen et al. is directed to wherein the write consistency includes at least one selected from the group consisting of none, creating an object, write over, write append, and write consistent (column 13, lines 1-9).

As per claim 16 Jensen et al. is directed to a computer-readable medium having recorded thereon instructions executable by a processor, the instructions for: obtaining a database schema that defines at least one artifact (column 6, lines 61-62);

obtaining an application usage specification that defines the application as a

plurality of states (column 9, lines 22-31) and a plurality of transitions (column 6, lines 63-64, wherein "transition" means "transform"), wherein the at least one artifact is associated with a state (column 9, lines 30-31); obtaining a read/write consistency specification that corresponds to at least one transaction, wherein the at least one transaction comprises at least one of the plurality of states and one of the plurality of transitions and the read/write consistency specification includes at least one selected from the group consisting of a read consistency and a write consistency to apply to at least one artifact within the transaction (column 12, lines 13-15; column 13, lines 1-9); and generating the application using the database schema, the application usage specification, and the read/write consistency specification (column 10, lines 46-57).

wherein the application accesses data associated with the at least one artifact using a read/write consistency specification when the application enters the at least one of the plurality of states (column 4, lines 41-49; column 9, lines 23-35).

As per claim 17 Jensen et al. is directed to an apparatus for generating an application, comprising:

means for obtaining a database schema that defines at least one artifact (column 6, lines 61-62);

means for obtaining an application usage specification that defines the application as a plurality of states (column 9, lines 22-31) and a plurality of transitions (column 6, lines 63-64, wherein "transition" means "transform"), wherein the at least one artifact is associated with a state (column 9, lines 30-31);

means for obtaining a read/write consistency specification that corresponds to at least one transaction, wherein the at least one transaction comprises at least one of the plurality of states and one of the plurality of transitions and the read/write consistency specification includes at least one selected from the group consisting of a read consistency and a write consistency to apply to the at least one artifact within the transaction (column 12, lines 13-15; column 13, lines 1-9);

and means for generating the application using the database schema, the application usage specification, and the read/write consistency specification (column 10, lines 46-57);

wherein the artifact is one selected from the group consisting of a variable, a relationship, and an attribute (column 6, lines 18-19).

wherein the application accesses data associated with the at least one artifact using a read/write consistency specification when the application enters the at least one of the plurality of states (column 4, lines 41-49; column 9, lines 23-35);

**(10) Response to Argument**

Appellant's argument regarding claim 1 that "Jensen does not disclose a transaction or a state" is not found persuasive.

Jensen teaches an object oriented application which communicates with storage unit. In column 8, lines 14-20, Jensen teaches an object-oriented application that commits transactions in structured databases. The transactions as shown by Shane in column 7, lines 12-13, may include query, update, insert and delete.

Jensen in column 12, lines 11-12, teaches a request to commit a transaction in which the method sets a state of objects. As show Shane reference contains both a transaction and a state.

Appellant's argument that "Jensen does no disclose a consistency specification" is not found persuasive.

Jensen in column 4, lines 44-45, teaches that data integrity is guaranteed by locking data appropriately in database during a transaction. A locking mechanism is a feature in database which prevents multiple processes or user to read or write. Locking may occur on a field record or file. According to Microsoft Press® Computer Dictionary second edition, copyright © 1994 by Microsoft Press states that locking is:

"The process of barring use of a file or a database record. Locking is used on networks and in other situations in which more than person might try to use the same file to change the same database record at the same time. By locking the file or record, the system ensures that only one person at the time can affect the information. Usually, the first person to gain access is the one who can make changes. Other users,

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although they might be able to see the information, are barred from doing anything to it until the material is unlocked."

As explained by above definition Jensen teaches a method of read and write consistency.

Appellant's argument that "Jensen fails to disclose using a consistency specification to obtain data when the application enters a particular state" is not found persuasive.

As stated above Jensen discloses both a state and consistency specification. Jensen, column 12, lines 11-23, discloses the use of state and consistency in conjunction with each other. For example, lines 17-23, describe a method that depending on a state a type of locking, in this example is default, is used to this particular transaction. This locking mode ensures that the queried rows within a database remain consistent.

Appellant's arguments regarding claim 13 that "Jensen does not disclose state or a transition" are not found persuasive.

This argument has been raised in regard to claim 1 and has been argued above. Additionally, Jensen, column 5, lines 45-50 states:

"An "object class" is a set of data (attributes) and functional capabilities (routines) encapsulated into a single logical entity. For example, an employee class may be

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characterized by a telephone number attribute and a "hire.sub.--employee" routine."

Further in column 5, lines 51-58, Jensen discloses:

"An "object instance" is an embodiment (instantiation) of an object class. Instances are differentiated from one another by their attribute values, but not their routines (capabilities). For example, Jane Smith may be a first person-object instance and John Doe may be a second person-object instance. The term "object" is often used by itself to refer loosely to either an object class or an object instance, the difference being understood in context."

And yet further in column 5, lines 59-65, Jensen describes:

"An "object-oriented application" is an operational computer program which when employed on an appropriate computer system uses a set of object instances that work in cooperation to perform useful work. For example, an object-oriented application could be built to manage personnel records for a company, including such operations as hire new employee or add an employee to a department."

In view of the above stated paragraphs, Jensen discloses application usage specification which uses varied data and functional capabilities.

Appellant's argument that "Jensen does no disclose a consistency specification" is not found persuasive.

This argument has been addressed above.

Appellant's argument that "Jensen does no disclose generating an application" is not found persuasive.

Jensen in column 10, lines 45-61 states:

"This mechanism uses an object model, database schema, and transform to define a mapping between the structured database and object instances of the application. Given these three inputs, it is possible to construct an object-oriented application that can retrieve information from the structured database according to the semantics of the object model. In particular, the application can retrieve a single object instance (that is, retrieve database information corresponding to a single object instance) using an object ID value, and can retrieve object instances related to a given object instance by following the relationship semantics of the object model and using foreign key mappings as specified by the transform. Construction of the object-oriented application according to the object model, database schema, and transform can be automated as is further disclosed in the above-mentioned patent application, or can be carried out manually by a developer."

As stated a mechanism uses object model, database schema and transform to construct object-oriented application. As per definition of object model, (Jensen, column 5, lines 66-67 and column 6, lines 1-2)

"An "object model" is a set of object classes that together form a blueprint for building an object-oriented application. Each object class of an object model can have attributes, inheritances, and relationships."

As presented above object classes contain data and functional capabilities. Object-oriented application uses object instance which is the embodiment of object class to perform useful work with the use of appropriate computer uses. As stated the mechanism uses a database schema and the consistency specification has been addressed in above written argument.

Appellant's argument that "Jensen does not disclose that the application accesses data from the database...using a consistency specification" is not found persuasive.

The argument as to the consistency specification has been answered above. As to appellant's argument that Jensen does not teach how to obtain data from a database is not valid in the light of the limitation. The claim limitations do not describe how data is obtained from the database. However, Jensen in column 4, lines 54-61 describe:

"In key swizzling, information requests from an object-oriented application are mapped into queries to the structured

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database, and the results of those queries are converted into object instances in the object cache. More particularly, implicit primary and foreign key references from the structured database are converted into explicit pointers between object instances contained in the object cache. Requests from an object-oriented application to navigate relationships between object instances in the cache are resolved by following these pointers."

Jensen therefore shows how data is obtained explicitly.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Tomasz Ponikiewski

May 29, 2007

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